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ABSTRACT

The Job Training Partnership Act (JTPA) of 1982 is a federally funded program for, and directed by, the states and provides that the governor of the state is the official recipient of JTPA funds. A study was conducted in Tennessee to identify and document a generalizable formula for determining eligible funds used to match JTPA expenditures to support a proposed change in current practices of identifying JTPA matching funds on the record of individual participants. Data were collected on individual students enrolled for the 1984 fall quarter for several variables; in addition, data contained in institutional reports covering the same time period were used. Individual student forms were distributed for a random sample of students drawn from institutional listings of Pell Grant-eligible students. Respondents for each institution were asked to furnish information on each student in the sample, including amounts computed in each of the following areas: total cost to college, student share, Pell Grant, vocational rehabilitation, veterans' benefits, and funds used. Respondents also indicated whether or not each student was eligible for JTPA and whether JTPA funds were used to pay the student share of the cost. Although the results of the study were limited by its small sample, the study indicates that the Pell Grant expenditures for aid recipients far exceed the matching requirements for JTPA funds. The data show that the Pell Grant expenditure per student is considerably higher than the student share paid by JTPA in the two types of schools with JTPA aid recipients, and, consequently, the composite group of aid recipients. In terms of actual dollars involved, the expenditures by/for JTPA-eligible students in fall quarter 1984 were student share: $111,712, total match: $558,617, a ratio of 5 to 1 overmatch. (Author/KC)

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JOB TRAINING PARTNERSHIP ACT

MATCHING FUND VALIDATION STUDY

State Board of Regents
Nashville, Tennessee 37217

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Abstract

The Job Training Placement Act (JTPA) of 1982 is a federally funded program for, and directed by, the State and provides that the Governor of the State is the official recipient of JTPA funds. In Tennessee, the State Board of Regents (SBR) was designated to provide the State Education Coordination and Grants Plan showing the intended use of JTPA funds. At least 80% of the funds available to the SBR are to be used to provide education and training to participants under JTPA.

With the responsibility for fiscal oversight vested in the State and the discretionary authority of the Governor to define and assure adequate matching funds, it became logical to move toward relieving responsible persons, as agents of the State, of much of the extraordinary paperwork that was required to document the state fund matching requirements based on each individual JTPA participant's records. The purpose of the project was to identify and document a generalizable formula for determining eligible funds used to match JTPA expenditures to support a proposed change in current practices of identifying JTPA matching funds on the record of individual participants. SBR proposed to meet the matching requirements for JTPA by utilizing Pell Grant funds and subsequent state training funds that are being expended for those who meet the criteria for JTPA eligibility whether they are JTPA participants or not.

The procedures for the study were designed to use two strategies, each of which would yield useful data but also permit taking advantage of their strengths while lessening the effects of their disadvantages. One strategy involved collecting data on individual students enrolled for the Fall Quarter, 1984, for several variables. The other strategy utilized data contained in institutional reports covering the same time period.

Individual student forms were distributed for a random sample of students drawn from institutional listings of Pell Grant-eligible students. Respondents for each institution were asked to furnish information on each student in the sample, including amounts computed in each of the following areas: total cost to college, student share, Pell Grant, vocational rehabilitation, veteran's benefits, SEOG, and other scholarship funds. Respondents also indicated whether or not each student was eligible for JTPA and if JTPA funds were used to pay the student share of the cost.

The findings of this study constitute the basis for deriving appropriate conclusions. Two factors related to the sample of subjects impose limitations in formulating conclusion. The first factor is the small percentage of JTPA aid recipients among the subjects (approximately 2%). The second factor is the absence of any JTPA aid recipients among the subjects from the community colleges.

Based on analyses of the data for JTPA aid recipients, the study indicates that the Pell Grant expenditures for aid recipients far exceed the matching requirements for JTPA funds. The data show that the Pell Grant expenditure per student is considerably higher than the Student Share paid by JTPA in the two types of schools with JTPA aid recipients (area vocational-technical schools and state technical institutes) and, consequently, the composite group of aid recipients.

The rationale for suggesting use of the Pell Grant or state in-kind expenditures to demonstrate compliance with the JTPA matching requirement is based on the relationship between the expenditures per student for JTPA aid recipients and all students. The actual expenditure of JTPA funds can be obtained for the aid recipients. The product of the number of JTPA aid recipients and the expenditure per student from Pell Grant funds or state in-kind funds would produce a conservative estimate of the expenditures from either source for JTPA aid recipients. If this conservative estimation of matching funds reveals compliance, the compilation of actual matching fund expenditures for aid recipents would reveal a larger expenditure from either matching fund source.

Based on JTPA expenditures Fall Quarter, 1984, for students enrolled in AVTS and State Technical Institutes, the ratio of Pell Grant and state in-kind funds expended for those JTPA recipients to JTPA funds used was 5.31 to 1. A composite for all JTPA-eligible students from all three kinds of institutions shows that a ratio of 5 to 1 results from the comparison of student share (potential JTPA expenditures) and the total match funds expended, Fall Quarter, 1984. In terms of actual dollars involved, the expenditures by/for JTPA-eligible students, Fall Quarter, 1984 were as follows:

Student Share (JTPA potential) $111,712
Total Match Expenditures $558,617
This will yield a ratio of 5 to 1 overmatch.

Introduction

The Job Training Placement Act (JTPA) of 1982 is a federally funded program that is directed from the State and provides that the Governor of the State is the official recipient of JTPA funds. The Act requires that the ". . . Governor shall provide financial assistance to any State Education Agency responsible for education and training."

In Tennessee, the State Board of Regents (SBR) was designated by the Governor to provide to the Tennessee Department of Labor the State Education Coordination and Grants Plan that would describe the intended use of the JTPA funds that are provided. At least 80% of the funds available to the SBR are to be used to provide education and training to participants under the JTPA.

The Governor, in accordance with federal regulations, designated a statewide aggregate match from non-JTPA (federal and state) expenditures for existing post-secondary students who receive Pell Grants or similar financial aid and who also meet the criteria for JTPA eligibility.

This study has been conducted by personnel of the Bureau of Educational Research and Services, Memphis State University, at the request of the Tennessee State Board of Regents from which JTPA "8% funds" are dispersed. The purpose of the project was to provide documentation to support a proposed change in current practices of identifying JTPA matching funds on an individual participant record. SBR proposed to meet the matching requirements for JTPA by utilizing Pell Grants and subsequent state training funds that are being expended for these persons and those who meet the criteria for JTPA participation, even though they are not participants.

The State Board of Regents system of post-secondary institutions and schools presently serves numerous individuals who meet the criteria for economic disadvantaged under JTPA. SBR contends that the matching requirement

of Section 123 can be met by utilizing Pell Grants, or similar financial aid, and subsequent state training funds presently being expended for these individuals. The percentage of JTPA eligibles who are receiving funds from these financial aid programs would generate more than an adequate match required in Section 123(b) for the State Board of Regents.

Since the Governor of the state is the recipient of JTPA funds, he has the authority and responsibility to ". . . define and assure the provisions of adequate resources to meet the matching requirements of Section 123(b) and Section 304 of the Act." With the responsibility for fiscal oversight vested in the State by the Act, and the discretionary authority of the Governor to define and assure adequate matching funds also specified by the Act, it was a logical next step to move toward efforts of relieving responsible persons, as agents of the State, of much of the extraordinary paperwork that has been required to document the state fund matching requirements based on each individual JTPA participant's records.

The procedures for the study were designed to use two strategies, each of which would yield useful data, but also would permit taking advantage of their strengths while lessening the effects of their disadvantages. One strategy involved collecting data on individual students for several variables. The other strategy utilized data contained in institutional reports.

Subjects and Data Collection

The population from which students were selected consisted of the students in state community colleges and technical schools who received Pell Grants in the Fall Quarter of the 1984-85 academic year. This population consisted of an estimated 15,000 students. Based on the assumption that 40% of these students were eligible for JTPA support, the JTPA-eligible population was approximately 6,000 students. The estimated size of the JTPA-eligible population would

require a sample of 361 students for a 95% confidence level and no more than a 5% error in the statistical data. A sample of 903 Pell Grant students would be necessary to obtain a sample of 361 JTPA-eligible students if the assumption of 40% JTPA-eligible representation was accurate.

Individual student forms were distributed for a random sample of students drawn from listings of Pell Grant-eligible students at each institution. Respondents at the identified institutions were asked to furnish information on each student in the sample including amounts computed in each of the following areas: total cost to college, student share, Pell Grant, vocational rehabilitation, veteran's benefits, SEOG, and other scholarship funds. Respondents also indicated whether or not each student was eligible for JTPA and if JTPA funds paid the student share of the cost. For the area vocational-technical schools, student share included only expenses such as books, supplies, and tools and no maintenance fees since none were assessed at these schools in the Fall Quarter, 1984. As a result, student share did not actually reduce the cost to the State to deliver the course. The student share at state technical institutes and community colleges actually offset State cost; JTPA funding, when received, covered only maintenance fees since cost of books and supplies was not included. Letters and forms used in the project are in Appendix A.

Table 1 describes the total population sample by sample size; the number of forms received; non-useable forms, including those students who did not actually receive Pell Grant monies in the fall of 1984, and students who either did not enroll in the fall of 1984 or withdrew that quarter, or for which insufficient data were submitted; and useable forms, including those students not eligible for JTPA funding and those students who were eligible for funding. The latter category was subdivided into those students who actually received

Table 1

Sample Size and Number of Non-Useable and Useable Forms, by Type of Institution

Institution	Sample Size	No. of Forms Received	Non-Useable Forms		Useable Forms		
			Pell Grant	Other	JTPA Non-Eligible	JTPA Eligible Non-Recipient	JTPA Eligible Recipient
AVTS							
Athens	3	3	0	0	1	2	0
Chattanooga	7	7	0	0	2	5	0
Crossville	6	6	1	0	1	3	1
Dickson	2	2	0	0	1	1	0
Harriman	12	12	0	0	6	3	3
Hartsville	11	11	0	0	2	7	2
Jacksboro	9	9	1	2	4	7	0
Jackson	10	9	0	1	4	3	1
Knoxville	23	23	1	0	6	14	2
Livingston	7	7	0	0	4	2	1
McKenzie	3	3	0	0	3	0	0
Memphis	25	24	3	0	2	17	0
Morristown	20	20	0	0	6	13	1
Murfreesboro	1	1	1	0	0	0	0
Nashville	8	8	2	0	0	6	0
Newbern	5	5	0	0	3	2	0
Oneida	3	3	0	0	1	1	1
Paris	6	6	0	1	2	0	3
Pulaski	2	2	0	0	0	1	1
Ripley	1	1	1	0	0	0	0
Savannah	6	6	1	0	2	0	3
Shelbyville	5	5	0	0	2	3	0
Whiteville	4	4	1	0	2	0	1
Total	179	177	12	4	56	85	20
State Tech							
Knoxville	42	42	0	0	18	22	2
Memphis	150	146	0	17	52	76	1
Nashville	68	68	1	1	30	35	1
Tri-Cities	46	46	0	0	19	26	1
Total	306	302	1	18	119	159	5
Com College							
Chattanooga	73	73	2	0	32	39	0
Cleveland	39	39	0	1	16	22	0
Columbia	64	64	2	6	31	25	0
Dyersburg	42	42	0	1	28	13	0
Jackson	63	63	0	1	22	40	0
Motlow	42	42	0	0	27	15	0
Roane	106	105	0	7	42	56	0
Shelby	237	237	16	0	80	141	0
Volunteer	38	38	0	0	23	15	0
Walter	81	81	0	5	39	37	0
Total	785	784	20	21	340	403	0

Table 1 (Continued)

Institution	Sample Size	No. of Forms Received	Non-Useable Forms: Pell Grant	Non-Useable Forms: Other	Useable Forms: JTPA Non-Eligible	Useable Forms: JTPA Eligible: Non-Recipient	Useable Forms: JTPA Eligible: Recipient
Summary							
AVTS	179	177	12	4	56	85	20
State Tech	306	302	1	18	119	159	5
Com College	785	784	20	21	340	403	0
Total	1,270	1,263	33	43	515	647	25

JTPA funding and those who did not.

The institutions supplied information on 1,263, or 99.45%, of the 1,270 students sampled. Seventy-seven, or 6.1%, of the forms were not useable for various reasons; mainly, that students (33) were not eligible for Pell Grants or SAR forms were not available to financial aid officials from which to furnish the requested information. Of the 1,187 useable forms, 515, or 43.39%, were JTPA non-eligible, whereas 672, or 56.61%, were JTPA eligible, a considerably larger proportion than had earlier been anticipated. Of the JTPA eligible (672), 647, or 96.28%, did not receive JTPA funds; 25, or 3.72%, did receive JTPA funds. The distribution of the 1,187 students by type of institution was 161 (13.56%) from area vocational-technical schools, 283 (23.85%) from state technical institutes, and 743 (62.59%) from community colleges.

The data from each individual student form were totaled for each institution, and the resulting data are presented in Appendices B, C, and D. In interpreting these data, total cost to college minus student share equals State In-Kind. The Other column includes funds from the Pell Grant, Vocational Rehabilitation, Veteran's Benefits, SEOG, and all other sources.

Appendix B presents the financial data for those JTPA students who were eligible and who received JTPA funds; Appendix C, the data for JTPA students

who were eligible but did not receive JTPA funds; and Appendix D, the financial data for students who were not eligible for JTPA. All appendices present both individual institutional totals and summary totals by type of institution (AVTS, state technical institute, and community college). In 1984, no JTPA funds were paid to students in community colleges, although a significant number of students were eligible. JTPA funding was not available to students in community colleges for the Fall Quarter, 1984.

At the institutional level, the summary of student financial aid awarded for 1984-85, prepared by each area vocational-technical school, state technical institute, and community college, was utilized as a data source. The number of awards and total amount of awards for Pell Grant aid were obtained from the report. These data were compiled by type of institution, to obtain the means for Pell Grant awards per academic year and quarter.

Findings

The students in the sample were classified on two variables in order to obtain descriptive statistics for selected financial variables. The first classification variable was type of school: area vocational-technical school, state technical institute, and community college. The second classification variable was based on JTPA eligibility: JTPA aid recipient, JTPA-eligible non-recipient, and JTPA non-eligible student. Descriptive statistics were derived for the students classified by type of institution, eligibility category, and composite group.

Four variables were specified for the analyses of the Fall, 1984, financial data reported on the students in the sample. These variables were designated as student share, Pell Grant, state in-kind, and total match. Student share was the financial obligation of the student that was paid by JTPA for JTPA aid recipients, or paid by the student who was not a JTPA aid recipient. The state

in-kind variable represented the total institutional cost for the student, reduced by the amount of the student share (total cost to the school minus student share). The total match was derived by obtaining the sum of state in-kind cost, Pell Grant, and other eligible in-kind funds (vocational rehabilitation, veteran's benefits, Supplementary Educational Opportunity Grant, and other).

The data presented in Table 2 are the means on the specified financial variables for students classified by JTPA aid category and type of institution. The means are also reported for the composites across each of the classification variables. The data for the composite group of students across institutional types revealed that the lowest mean on student share was for the JTPA aid recipients, while the highest mean was for JTPA-eligible non-recipients. The means on Pell Grant were lowest for JTPA aid recipients and highest for JTPA-eligible non-recipients. The means on state in-kind were highest for JTPA aid recipients and lowest for JTPA-eligible non-recipients. With respect to total match, the mean was highest for JTPA aid recipients and lowest for JTPA non-eligible students. A comparative review of the means on financlal variables indicated a consistent pattern within each JTPA eligibility category. The lowest mean was for student share, exceeded in order by Pell Grant, state in-kind, and total match.

Among the students from area vocational-technical schools, the means on student share were highest for JTPA-eligible non-recipients and lowest for JTPA non-eligible students. The mean on Pell Grant was highest for JTPA aid recipients while the mean on state in-kind was highest for JTPA non-eligible students. The means on total match were highest for the JTPA eligible non-recipients and lowest for the JTPA aid recipients. The data for the state technical institutes revealed the highest means for JTPA aid recipients on all

Table 2

Means on Selected Financial Variables for Students Classified by JTPA Aid Category in Area Vocational-Technical Schools, State Technical Institutes, and Community Colleges - Fall, 1984

Financial Variable	JTPA Aid Recipient	JTPA-Eligible Non-Recipient	JTPA Non-Eligible	Composite
	Area Vocational-Technical Schools			
	(N=20)	(N=85)	(N=56)	(N=161)
Student Share	$160.91*	$ 176.62	$134.28	$ 159.94
Pell Grant	232.40	209.65	185.04	203.92
State In-Kind	590.75	559.15	622.70	585.18
Other**	38.85	381.24	264.94	298.26
Total Match***	862.01	1,150.04	1,072.67	1,087.35
	State Technical Institutes			
	(N=5)	(N=159)	(N=119)	(N=283)
Student Share	173.20*	169.48	164.26	167.35
Pell Grant	391.60	348.86	293.31	326.26
State In-Kind	482.04	467.41	460.98	464.96
Other**	13.20	43.80	38.12	40.87
Total Match***	886.84	860.07	792.41	832.09
	Community Colleges			
	(N=0)	(N=403)	(N=340)	(N=743)
Student Share	----	173.92	169.91	172.09
Pell Grant	----	352.60	303.38	330.07
State In-Kind	----	401.96	418.70	409.62
Other**	----	49.36	42.23	46.10
Total Match***	----	803.91	764.30	785.79
	Composite			
	(N=25)	(N=647)	(N=515)	(N=1,187)
Student Share	163.37*	173.18	164.73	169.31
Pell Grant	264.24	332.90	288.18	312.05
State In-Kind	569.01	438.69	450.65	446.62
Other**	33.72	91.59	65.49	79.06
Total Match***	866.97	863.19	804.33	837.73

Data shown in this table are from Appendices A, B, C, and D
*Paid by JTPA
**Other includes Voc. Rehab., Veteran Benefits, SEOG, and Scholarship funds
***Total match includes Pell Grant, State In-Kind, and Other eligible funds

Table 3

Ratios of Expenditures Per Student From Selected Fund Sources to JTPA and Pell Grant Expenditures Per Student For JTPA Aid Recipients by Type of School - Fall, 1984

Fund Source to JTPA	Ratios to JTPA			
	Area Vocational-Technical Schools (N=20)	State Technical Institutes (N=5)	Community College (N=0)	Composite (N=25)
Pell Grant	1.44	2.26	----	1.62
State In-Kind	3.67	2.78	----	3.48
Total Match	5.36	5.12	----	5.31
Fund Source to Pell Grant	**Ratios to Pell Grant**			
JTPA	.69	.44	----	.62
State In-Kind	2.54	1.23	----	2.15
Total Match	3.71	2.26	----	3.28

financial variables. Among the community college students, the JTPA-eligible non-recipients had higher means than the JTPA non-eligible students on all financial variables except state in-kind.

Table 3 contains the ratios of expenditures per student from selected fund sources to JTPA expenditures per student for JTPA aid recipients by type of school and composite. Among the JTPA aid recipients in the area vocational-technical schools, the expenditures of funds per $1.00 of JTPA funds expended were $1.44 for Pell Grant, $3.67 for state in-kind, and $5.36 for total match. The data for the JTPA aid recipients in state technical institutes revealed that the expenditures per $1.00 of JTPA funds expended were $2.76 for Pell Grant, $2.78 for state in-kind, and $5.12 for total match. Since the number of

subjects from area vocational-technical schools was 80% of all JTPA aid recipients, the ratios for the composite group were similar to the ratios for the area vocational-technical school students.

The ratios of Pell Grant expenditures per student to other fund source expenditures are also reported in Table 3 for JTPA recipients by type of school and composite. For each $1.00 expended through a Pell Grant, the expenditures of JTPA funds were $.69 in area vocational-technical schools, $.44 in state technical institutes, and $.62 in the composite group of JTPA aid recipients. The state in-kind expenditures per $1.00 of Pell Grant funds were $2.54 in area vocational-technical schools, $1.23 in state technical institutes, and $2.15 in the composite group. The total match expenditures per $1.00 of Pell Grant funds were $3.71 in area vocational-technical schools, $2.26 in state technical colleges, and $3.28 in the composite group.

Inferential analyses were performed to compare means on the selected financial variables for specific groups of students. First, the means for the JTPA aid recipients and JTPA-eligible non-recipients were compared for each financial variable by type of school and composite group using the t-test procedure. Second, the means for the JTPA aid recipients and all students, including the JTPA aid recipients, were compared in the same manner. Additional t-test statistics were computed to compare the means on the student share and Pell Grant financial variables for the JTPA aid recipients and the JTPA-eligible non-recipients independently. The .05 level of significance was used to identify significant differences in the comparisons of means.

The results of comparing the means on financial variables for JTPA aid recipients and JTPA-eligible non-recipients by type of school are presented in Table 4. The means were higher for the aid recipients than the eligible non-recipients in the area vocational-technical schools on the Pell Grant and

state in-kind variables. The eligible non-recipients had higher means than the aid recipients on student share and total match. The only variable with a significant difference in means was the total match. Among students in state technical institutes, the means were higher on all variables for aid recipients than for eligible non-recipients. None of the differences was significant statistically. The means for the composite group showed that the eligible non-recipients had higher means than the aid recipients on the student share and Pell Grant variables while the differences were in the opposite direction for the two groups on the state in-kind and total match variables. The differences were statistically significant for the Pell Grant and state in-kind variables.

Table 5 depicts the results of comparing the means on financial variables for JTPA aid recipients and all students by type of school. Among the students in area vocational-technical schools, the means for aid recipients and all students were essentially the same on the student share and state in-kind variables. The aid recipients had a higher mean on the Pell Grant variables than all students. The mean for all students was significantly higher on the total match for all students than aid recipients. The aid recipients in state technical institutes had higher means of all financial variables than the eligible non-recipients. The differences were statistically significant for the student share and Pell Grant variables. For the composite group, the eligible non-recipients had higher means on the student share and Pell Grant variables while the aid recipents had higher means on the state in-kind and total match variables. The mean on the state in-kind variable was significantly higher for the aid recipients than the eligible non-recipients.

The results of comparing the means on the student share and Pell Grant variables are shown in Table 6 for the JTPA aid recipients and the

Table 4

Comparison of Means on Selected Financial Variables for JTPA Aid Recipients and JTPA-Eligible Non-Recipients in Area Vocational Technical Schools, State Technical Institutes, and Community Colleges - Fall, 1984

Financial Variable	JTPA Aid Recipient Mean	JTPA Aid Recipient S.D.	JTPA-Eligible Non-Recipient Mean	JTPA-Eligible Non-Recipient S.D.	t
	Area Vocational-Technical Schools				
	(N=20)		(N=85)		
Student Share	$160.91*	157.96	$ 176.62	202.17	-.391
Pell Grant	232.40	115.62	209.65	99.89	.812
State In-Kind	590.75	258.48	559.15	307.28	.474
Total Match**	862.01	246.24	1,150.04	708.40	-3.047***
	State Technical Institutes				
	(N=5)		(N=159)		
Student Share	173.20*	1.10	169.48	37.82	1.224
Pell Grant	391.60	45.74	348.86	80.03	1.996***
State In-Kind	482.04	137.56	467.41	168.52	.232
Total Match**	886.84	149.23	860.07	293.02	.379
	Community Colleges				
	(N=0)		(N=403)		
Student Share	--------	--------	173.92	67.55	----
Pell Grant	--------	--------	352.60	77.21	----
State In-Kind	--------	--------	401.96	189.79	----
Total Match**	--------	--------	803.91	279.53	----
	Composite				
	(N=25)		(N=647)		
Student Share	163.37*	140.64	173.18	92.25	-.346
Pell Grant	264.24	123.11	332.90	94.22	-2.758***
State In-Kind	569.01	240.86	438.69	211.17	2.666***
Total Match**	866.97	227.63	863.19	384.58	.079

*Paid by JTPA
**Total match includes all eligible in-kind funds
***$t=\pm$ 1.984, df=103, level of significance = .05
$t=\pm$ 1.977, df=162, level of significance = .05
$t=\pm$ 1.964, df=670, level of significance = .05

Table 5

Comparisons of Means on Selected Financial Variables for JTPA Aid Recipients and All Students in Area Vocational-Technical Schools, State Technical, Institutes, and Community Colleges - Fall, 1984

Financial Variable	JTPA Aid Recipient Mean	JTPA Aid Recipient S.D.	All Students Mean	All Students S.D.	t
	Area Vocational-Technical Schools				
	(N=20)		(N=161)		
Student Share	$160.91*	157.96	159.94	179.59	.031
Pell Grant	232.40	115.62	203.92	102.33	1.052
State In-Kind	590.75	258.48	585.18	290.33	.090
Total Match**	862.01	246.24	1,087.35	647.78	-3.001***
	State Technical Institutes				
	(N=5)		(N=283)		
Student Share	173.20*	1.10	167.35	32.39	2.944***
Pell Grant	391.60	45.74	326.26	91.76	3.806***
State In-Kind	482.04	137.56	464.96	160.07	.274
Total Match**	886.84	149.23	832.09	286.87	.795
	Community Colleges				
	(N=0)		(N=743)		
Student Share	--------	--------	172.09	64.43	----
Pell Grant	--------	--------	330.07	91.51	----
State In-Kind	--------	--------	409.62	188.50	----
Total Match**	--------	--------	785.79	276.53	----
	Composite				
	(N=25)		(N=1,187)		
Student Share	163.37*	140.64	169.31	84.94	-.210
Pell Grant	264.24	123.11	312.05	102.43	-1.928
State In-Kind	569.01	240.86	446.62	207.94	2.521***
Total Match**	866.97	227.63	837.73	366.30	.625

*Paid by JTPA
**Total match includes all eligible in-kind funds
***$t=\pm$ 1.974, df=179, level of significance = .05
$t=\pm$ 1.968, df=286, level of significance = .05
$t=\pm$ 1.962, df=1,210, level of significance = .05

JTPA-eligible non-recipients by type of school. The means for each of the two groups in the area vocational-technical schools were considerably higher on the Pell Grant variable than the student share variable. The differences were not significant statistically. Within each of the two groups of students in the state technical institutes, the means were significantly higher for the Pell Grant variable than the student share variable. For both composite groups of students, the means were significantly higher on the Pell Grant variable than the student share variable.

Table 7 presents a summary of the data on Pell Grant aid for students in area vocational-technical schools, state technical institutes, and community colleges during 1984-85. These data were compiled from reports on student financial aid awarded that were prepared by the institutions for 1984-85. The number of awards for each type of school represents the number of students who received Pell Grant aid for at least one quarter during the 12-month period. The mean per year was derived by dividing the total amount of awards for each type of school by the number of awards. The mean per quarter was obtained by dividing the mean per year by three. (A divisor of three was used because the amount of the Pell Grant aid entitlement is for the equivalent of an academic year; i.e., three quarters for the institutions included in this study.)

The institutional data for 1984-85 showed that students in community colleges received almost three-fifths of the Pell Grant awards made to students in the three types of schools. Nearly one-fourth of the awards were made to students in state technical institutes while almost one-fifth of the awards were received by students in area vocational-technical schools. The means per year and quarter were approximately the same for students in state technical institutes and community colleges, the means for the latter being only slightly higher. Compared to the mean for the awards to students in area

Table 6

Comparisons of Means on Student Share and Pell Grant Variables for JTPA Aid Recipients and JTPA-Eligible Non-Recipients in Area Vocational-Technical Schools and State Technical Institutes - Fall, 1984

	Area Vocational-Technical Schools					
		Student Share		Pell Grant		t
	N	Mean	S.D.	Mean	S.D.	
JTPA Aid Recipient	20	160.91*	157.96	232.40	115.62	-1.633
JTPA-Eligible Non-Recipient	85	176.62	202.17	209.65	99.89	-1.350
	State Technical Institutes					
JTPA Aid Recipient	5	173.20*	1.10	391.60	45.74	-10.674**
JTPA-Eligible Non-Recipient	159	169.48	37.82	348.86	80.03	-25.553**
	Composite					
JTPA Aid Recipient	25	163.37*	140.64	264.24	123.11	-2.698**
JTPA-Eligible Non-Recipient	647	173.18	92.25	332.90	94.22	-30.810**

*Paid by JTPA

**$t=\pm$ 2.306, df=8, level of significance = .05

$t=\pm$ 2.025, df=38, level of significance = .05

$t=\pm$ 2.011, df=48, level of significance = .05

$t=\pm$ 1.976, df=168, level of significance = .05

$t=\pm$ 1.968, df=316, level of significance = .05

$t=\pm$ 1.962, df=1,292, level of significance = .05

Table 7

Summary of Data on Pell Grant Awards for Students in Area Vocational-Technical Schools, State Technical Institutes, and Community Colleges During 1984-85

	Area Vocational-Technical Schools	State Technical Institutes	Community Colleges
Number of Awards	2,217	2,785	7,035
Amount-Total	$983,016	$2,009,883	$5,179,319
Mean Per Year	443.40	721.68	736.22
Mean Per Quarter	147.80	240.56	245.41

vocational-technical schools, the means were about 63% higher for the students in state technical institutes and 66% higher for the students in community colleges.

Data for specified groups of students in area vocational-technical schools, state technical institutes, and community colleges are summarized in Table 8 for Pell Grant awards and JTPA awards during the Fall Quarter, 1984. With respect to Pell Grants, means for "all recipients" were obtained using data from two sources: (1) institutional reports for 1984-85 and (2) forms completed for the sample of individual students included in the study who were enrolled in school during the Fall Quarter, 1984. The means derived from the data on individual students exceeded the means derived from the institutional reports by 38% for area vocational-technical schools, 36% for state technical institutes, and 34% for community colleges. The means for the Pell Grant amounts per quarter derived from the institutional reports are probably underestimates of the means for the amount per quarter actually received by

students. The underestimate is produced because each student who received Pell Grant aid for a minimum of one quarter was included in the number of awards. The derivation of the amount per quarter based on the institutional reports required the assumption that all recipients received Pell Grant aid during the three quarters of the 1984-85 academic year. Consequently, the means based on the data for individual students are probably more accurate measures of the means per quarter for Pell Grant aid received by students.

The data in Table 8 on Pell Grant awards revealed a consistent relationship among the means for the specified groups within each type of school. The highest means on Pell Grant awards within each type of school were for the JTPA aid recipients in the two types that offered JTPA assistance in the Fall Quarter, 1984. The second highest means within each of the three types of schools were for the JTPA-eligible non-recipients. The means for all Pell Grant recipients in each of the three types of schools were lowest of any of the groups specified for the study sample. As stated above, these means were higher, however, than the means for all Pell Grant recipients based on the data from the institutional reports for 1984-85.

The relationships between the means of JTPA awards for recipients and Pell Grant awards for the specified groups of students in the Fall Quarter, 1984, are also revealed in Table 8. Among the students from area vocational-technical schools, the mean for JTPA awards was lower than the means for Pell Grant awards received by any of the specified groups using data from the study sample. Only the mean for Pell Grant awards based on data from the institutional reports was lower than the mean for JTPA awards received by students in area vocational-technical schools. The mean for JTPA awards received by students in state technical institutes was lower than the means for Pell Grant awards received by any of the specified groups in the study sample

Table 8

Summary of Data on Pell Grant Awards and JTPA Awards for Specified Groups of Students in Area Vocational-Technical Schools, State Technical Institutes, and Community Colleges During the Fall Quarter, 1984*

	Pell Grant Awards					
	Area Vocational-Technical Schools		State Technical Institutes		Community Colleges	
	N	Mean	N	Mean	N	Mean
Institutional Report						
All Recipients, 1984-85	2,217	$147.80	2,785	$240.56	7,035	$245.41
Study Sample						
All Recipients, Fall, 1984	161	203.92	283	326.26	743	330.07
JTPA-Eligible Non-Recipients, Fall, 1984	85	209.65	159	348.86	403	352.60
JTPA Recipients, Fall, 1984	20	232.40	5	391.60	-----	------
	JTPA Awards					
JTPA Recipients, Fall, 1984	20	160.91	5	173.20	-----	------

*Data for 1984-85 derived from student financial aid reports compiled by each school

Data for Fall, 1984, derived from sample of students in the study

and the institutional reports. None of the students in the community colleges received JTPA awards in the Fall Quarter, 1984.

Conclusions

The findings of this study constitute the basis for deriving appropriate conclusions. Two factors related to the sample of subjects impose limitations in formulating conclusions. The first factor is the small percentage of JTPA aid recipients among the subjects (approximately 2%). The second factor is the absence of any JTPA aid recipients among the subjects from the community colleges. With these limitations noted, the conclusions are presented below.

Based on analyses of the data for JTPA aid recipients, the study indicates that the Pell Grant expenditures for aid recipients far exceed the matching requirement for JTPA funds. The data show that the Pell Grant expenditure per student is considerably higher than the student share paid by JTPA in the two types of schools with JTPA aid recipients (area vocational-technical schools and state technical institutes) and, consequently, the composite group of aid recipients. Incidentally, the same relationship between student share and Pell Grant expenditures per student exists among the JTPA-eligible non-recipients in the two types of schools and the composite group of students. The magnitudes of the differences between the Pell Grant and student share expenditures per student for aid recipients would assure that the JTPA matching requirement is met.

Comparisons of JTPA aid recipients and JTPA-eligible non-recipients on the selected financial variables used in this study produce inconclusive results. For the composite group across types of schools, the student share expenditure mean is slightly higher for the eligible non-recipients than the aid recipients while the means for the two eligibility groups on total match differ slightly in the reverse order. The Pell Grant expenditure per student is significantly

higher for the eligible non-recipients while the state in-kind expenditure per student is significantly higher for the aid recipients. The results of these comparisons are probably influenced unduly by the inclusion of community college students among the JTPA-eligible non-recipients (62% from community colleges) and the absence of any JTPA aid recipients from community colleges.

The comparisons of JTPA aid recipients and all students on the selected financial variables included in this study suggest that the expenditures per student on two of the variables could be used at the level of institutional type to estimate conservatively the expenditures per JTPA student. Separate analyses of the data for students in area vocational-technical schools and state technical institutes reveal similar results. The mean on the student share variable (the amount paid by JTPA for aid recipients) is higher for JTPA aid recipients than the mean for all students in each type of institution. The means on the Pell Grant and state in-kind variables (two independent sources of JTPA matching funds) are also higher for JTPA aid recipients than the means for all students in each type of institution. Data on students in each type of institution also show that the JTPA expenditure per aid recipient is considerably higher than the student share expenditure and the state in-kind expenditure is several times the student share expenditure.

The use of data from institutional reports on student financial aid received during a 12-month period will provide a conservative estimate of the amount received per quarter by each recipient. This conclusion is supported by the comparison of Pell Grant aid means per quarter based on data from institutional reports for 1984-85 and data from individual students in the Fall Quarter, 1984. The use of data on JTPA aid from a 12-month period to derive the mean per quarter for each recipient would likely produce a smaller mean than is obtained by using data for the amount of aid and number of recipients

in a specific quarter. In order to make valid comparisons of the amount of Pell Grant and JTPA aid received by students, data for the same time period should be used. The data from the Fall Quarter, 1984, show a consistent pattern of higher means per student for Pell Grant awards and JTPA awards across types of institutions. Data for both types of aid from 12-month reports on student financial aid awarded would probably reveal the same pattern.

The rationale for suggesting use of the Pell Grant or state in-kind variable to demonstrate compliance with the JTPA matching requirement is based on the relationship between the expenditures per student for JTPA aid recipients and all students. The actual expenditures of JTPA Funds can be obtained for the aid recipients. The product of the number of JTPA aid recipients and the expenditure per student from Pell Grant funds or state in-kind funds would produce a conservative estimate of the expenditures from either source for JTPA aid recipients. If this conservative estimation of matching funds reveals compliance, the compilation of actual matching fund expenditures for aid recipients would reveal a larger expenditure from either matching fund source.

Based on JTPA expenditures Fall Quarter, 1984, for students enrolled in AVTS and State Technical Institutes, the ratio of Pell Grant and state in-kind funds expended for those JTPA recipients to JTPA funds used was 5.31 to 1. A composite for all JTPA-eligible students for all three kinds of institutions shows that a ratio of 5 to 1 results from the comparison of student share (potential JTPA-expenditures) and the total match funds expended, Fall Quarter, 1984. In terms of actual dollars involved, the expenditures by/for JTPA-

eligible students, Fall Quarter, 1984 were as follows:

Student Share (JTPA potential)	$111,712
Total Match Expenditures	$558,617

This will yield a ratio of 5 to 1 overmatch.

APPENDIX A

DATA COLLECTION INSTRUMENTS

TOTAL INSTITUTIONAL COST PER STUDENT CREDIT HOUR
LOWER LEVEL CLASSES

10/23/84

HEGIS CODE	TAXONOMY	COST PER HOUR
01000	Agriculture	65.17
02000	Architecture	63.09
04000	Biological Science	43.67
05000	Business & Management	33.58
06000	Communications	49.32
08000	Education	48.79
10000	Fine and Applied Arts	58.52
11000	Foreign Languages	50.83
13000	Home Economics	44.75
15000	Letters	36.37
17000	Mathematics	33.18
19000	Physical Science	48.18
20000	Psychology	33.28
21000	Public Affairs and Services	39.01
22000	Social Sciences	34.74
49000	Interdisciplinary Studies	39.24
50000	Business & Commerce	49.85
51000	Data Processing Tech.	51.45
52000	Health Services & Paramedical	73.10
53000	Mechanical & Engineering Tech.	57.34
54000	Natural Science Tech.	63.06
55000	Public Service Related Tech.	44.42
	Total	43.46